Macintosh™ Classic®
Special Options and Technical Information

Options

Limited Warranty on Media and Replacement

If you discover physical defects in the manuals distributed with an Apple product or in the media on which a software product is distributed, Apple will replace the media or manuals at no charge to you, provided you return the item to be replaced with proof of purchase to Apple or an authorized Apple dealer during the 90-day period after you purchased the software. In addition, Apple will replace damaged software media and manuals for as long as the software product is included in Apple's Media Exchange Program. While not an upgrade or update method, this program offers additional protection for two years or more from the date of your original purchase. See your authorized Apple dealer for program coverage and details. In some countries the replacement period may be different; check with your authorized Apple dealer.

ALL IMPLIED WARRANTIES ON THE MEDIA AND MANUALS, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO NINETY (90) DAYS FROM THE DATE OF THE ORIGINAL RETAIL PURCHASE OF THIS PRODUCT.

Even though Apple has tested the software and reviewed the documentation, **APPLE MAKES NO WARRANTY OR REPRESENTATION, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO SOFTWARE, ITS QUALITY, PERFORMANCE, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. AS A RESULT, THIS SOFTWARE IS SOLD "AS IS," AND YOU, THE PURCHASER, ARE ASSUMING THE ENTIRE RISK AS TO ITS QUALITY AND PERFORMANCE.**

IN NO EVENT WILL APPLE BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY DEFECT IN THE SOFTWARE OR ITS DOCUMENTATION, even if advised of the possibility of such damages. In particular, Apple shall have no liability for any programs or data stored in or used with Apple products, including the costs of recovering such programs or data.

THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS, ORAL OR WRITTEN, EXPRESSED OR IMPLIED. No Apple dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Important

This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in Part 15 of FCC rules. See instructions if interference to radio or television reception is suspected.

DOC Class B Compliance This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the radio interference regulations of the Canadian Department of Communications.

Observation des normes—Classe B Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Classe B prescrites dans les règlements sur le brouillage radioélectrique édictés par le Ministère des Communications du Canada.



Macintosh™ Classic®
Special Options and Technical Information

Options

Apple Computer, Inc.

This manual and the software described in it are copyrighted, with all rights reserved. Under the copyright laws, this manual or the software may not be copied, in whole or part, without written consent of Apple, except in the normal use of the software or to make a backup copy of the software. The same proprietary and copyright notices must be affixed to any permitted copies as were affixed to the original. This exception does not allow copies to be made for others, whether or not sold, but all of the material purchased (with all backup copies) may be sold, given, or loaned to another person. Under the law, copying includes translating into another language or format.

You may use the software on any computer owned by you, but extra copies cannot be made for this purpose.

The Apple logo is a trademark of Apple Computer, Inc. Use of the "keyboard" Apple logo (Option-Shift-K) for commercial purposes without the prior written consent of Apple may constitute trademark infringement and unfair competition in violation of federal and state laws.

© Apple Computer, Inc., 1991
20525 Mariani Avenue
Cupertino, CA 95014-6299
(408) 996-1010

Apple, the Apple logo, Apple Desktop Bus, LaserWriter, Macintosh, and SuperDrive are trademarks of Apple Computer, Inc.

Classic is a registered trademark licensed to Apple Computer, Inc.

Adobe, Adobe Illustrator, and POSTSCRIPT are registered trademarks, and Adobe Garamond is a trademark, of Adobe Systems Incorporated.

Exposure is a registered trademark of Preferred Publishers, Inc.

ITC Zapf Dingbats is a registered trademark of International Typeface Corporation.

Linotronic is a registered trademark of Linotype Co.

Microsoft is a registered trademark of Microsoft Corporation.

Motorola is a registered trademark of Motorola Corporation.

QuarkXPress is a registered trademark of Quark, Inc.

SuperPaint is produced by Silicon Beach Software.

Mention of third-party products is for informational purposes only and constitutes neither an endorsement nor a recommendation. Apple assumes no responsibility with regard to the performance or use of these products.

Contents

Radio and television interference iv

Special Options and Technical Information 1

Special features 2
- Adjusting screen brightness 2
- Programmer's switch 3

Technical information 4
- Main unit 4
- Keyboard 5
- Mouse 5
- Size and weight 6
- Apple Desktop Bus power requirements 6
- RAM configurations 6
- Environment 7

Using the Macintosh Classic overseas 8

Keep this booklet 8

Radio and television interference

The equipment described in this manual generates, uses, and can radiate radio-frequency energy. If it is not installed and used properly—that is, in strict accordance with Apple's instructions—it may cause interference with radio and television reception.

This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in Part 15 of FCC rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that the interference will not occur in a particular installation.

You can determine whether your computer is causing interference by turning it off. If the interference stops, it was probably caused by the computer or one of the peripheral devices.

If your computer system does cause interference to radio or television reception, try to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move the computer to one side or the other of the television or radio.
- Move the computer farther away from the television or radio.
- Plug the computer into an outlet that is on a different circuit from the television or radio. (That is, make certain the computer and the television or radio are on circuits controlled by different circuit breakers or fuses.)

If necessary, consult your authorized Apple dealer or an experienced radio/television technician for additional suggestions. You may find helpful the following booklet, prepared by the Federal Communications Commission: *Interference Handbook* (stock number 004-000-00345-4). This booklet is available from the U.S. Government Printing Office, Washington, DC 20402.

△ **Important:** Changes or modifications to this product not authorized by Apple Computer, Inc., could void the FCC certification and negate your authority to operate the product.

This product was tested for FCC compliance under conditions that included the use of shielded cables and connectors between system components. It is important that you use shielded cables and connectors to reduce the possibility of causing interference to radios, television sets, and other electronic devices. For Apple peripheral devices, you can obtain the proper shielded cables from your authorized Apple dealer. For non-Apple peripheral devices, contact the manufacturer or dealer for assistance. △

Special Options and Technical Information

The Macintosh™ Classic® computer embodies the same "user-friendly" philosophy as the original Macintosh, while providing more memory, faster performance, and more sophisticated system software—all in an affordable classic design.

Special Features

The Macintosh Classic has two special features you should know about:

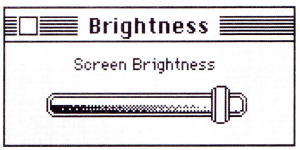
- software for adjusting screen brightness
- a programmer's switch

Adjusting screen brightness

You adjust the brightness of the Macintosh Classic screen in the Brightness control panel.

1. **Choose Control Panels from the Apple (🍎) menu.**
2. **Double-click the Brightness control panel icon.**

 The Brightness control panel appears.



3. **Using the pointer, drag the bar on the Screen Brightness control to the brightness setting you want.**

 As you drag the bar, the screen brightness changes accordingly.

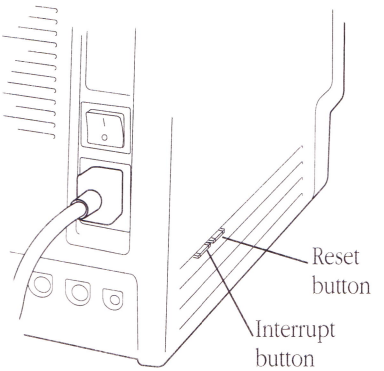
Your choice remains in effect until you choose a different brightness level.

Programmer's switch

The *programmer's switch* on the side of the computer is intended for use by programmers. If you are not developing programs, do not use the switch. Using it in the wrong way could cause you to lose information.

The programmer's switch has two parts: the reset button and the interrupt button. Pressing the reset button is just like turning the power switch off and back on; consequently, any work you have not saved will be lost.

Press the interrupt button only if you have debugging software installed. If you accidentally press the interrupt button, you'll see a rectangular box with a greater-than (>) sign on the screen. Don't panic—you will not lose any data. Simply type G and then press Return.



Technical information

This section describes the technical specifications of the Macintosh Classic computer.

Main unit

Processor

- MC68000, 32-bit architecture, 7.8336 megahertz (MHz) clock frequency

Memory

- 2 megabytes (MB) of random-access memory (RAM), expandable to 4 MB
- 512 kilobytes (K) of read-only memory (ROM)
- 256 bytes of user-settable parameter memory

Disk drives

- Built-in SuperDrive™ (1.4 MB floppy disk drive)
- Internal 40 MB SCSI hard disk drive
- Optional external SCSI hard disk drive (several capacities available)

Interfaces

- Apple Desktop Bus™ (ADB) port for keyboard, mouse, and other devices using a low-speed, synchronous serial bus
- Two RS-232/RS-422 serial ports, 230.4 kilobits (Kbits) per second maximum (up to 820 Kbits per second if clocked externally)
- External floppy disk interface
- SCSI interface
- Sound output port for external audio amplifier

Video display

- Built-in 9" high-resolution 512-by-342-pixel bitmapped display

Sound generator

- 4-voice sound with 8-bit digital-analog conversion using 22 kilohertz (kHz) sample rate

Input

- Line voltage: 220–240 volts AC, RMS
- Frequency: 47–63 hertz (Hz) single phase
- Power: 100 watts (W) maximum

Clock/calendar

- CMOS custom chip with long-life lithium battery

▲ **Warning:** If the clock begins to lose accuracy, see your authorized Apple dealer or representative for a battery replacement. Do not attempt to replace the clock battery yourself. ▲

Fan

- 10 CFM axial

Keyboard

- Apple Desktop Bus keyboard, with numeric keypad

Mouse

- ADB mouse: either mechanical-tracking, optical-shaft, or contact-encoding

Size and weight

Weight	Height	Width	Depth
Main unit			
7.8 kg 17.1 lb.	336.4 mm 13.2 in.	246.0 mm 9.7 in.	284.9 mm 11.2 in.
Mouse			
0.17 kg 6 oz.	27.9 mm 1.1 in.	53.3 mm 2.1 in.	96.5 mm 3.8 in.
Keyboard			
0.89 kg 1.96 lb.	32.5 mm 1.3 in.	405.3 mm 16.0 in.	150.6 mm 5.9 in.

Apple Desktop Bus power requirements

- Maximum power draw for all ADB devices: 500 milliamperes (mA)
- Mouse draws 80 mA
- Keyboard draws 25 mA

❖ *Note:* Up to three ADB devices can be daisy-chained to the ADB port. ❖

RAM configurations

Standard RAM is soldered to the main logic board. Additional RAM can be installed by means of Single In-line Memory Modules (SIMMs).

RAM chips and SIMMs must be rated at 150 nanoseconds (ns) RAM access time or faster.

▲ **Warning:** Additional memory should be installed only by an authorized Apple™ dealer or service provider. ▲

Environment

Operating temperature

- 10° C to 40° C (50° F to 104° F)

Storage temperature

- –40° C to 47° C (–40° F to 116.6° F)

Relative humidity

- 5% to 95% (noncondensing)

Altitude

- 4722 m (15,000 ft.) maximum

Using the Macintosh Classic overseas

Your Macintosh Classic is designed to operate at a nominal line voltage ranging from 220 V to 240 V at 50 Hz or 60 Hz. In countries that employ a different standard (usually 100 V to 120 V at 50 Hz), you must use a grounded, step-up isolation transformer to convert 100–120 V to 220–240 V. Transformers are available at most electronics stores.

▲ **Warning:** Do not use a transformer whose plug lacks a third prong for use with a grounded outlet. Use of a nongrounded transformer can result in electrical shock to you and damage to the computer or other components. ▲

Keep this booklet

Save this booklet; it contains information not covered in the other manuals that came with your computer.

The Apple Publishing System

This Apple™ manual was written and edited on a desktop publishing system using Apple Macintosh™ computers and Microsoft Word. Line art was created with Adobe Illustrator. Screen shots were created and modified using Macinsoth system software, Exposure, and SuperPaint. Pages were composed in QuarkXPress. Proof pages were created on Apple LaserWriter™ printers. Final pages were output directly to separated film using Linotronic imagesetters.

Display type is Apple's corporate font, a condensed version of Garamond. Text type is Adobe Garamond. Ornaments are ITC Zapf Dingbats®.

PostScript®, the LaserWriter page-description language, was developed by Adobe Systems Incorporated.



Apple Computer, Inc.
20525 Mariani Avenue
Cupertino, California 95014
(408) 996-1010
TLX 171576

Z030-4042-A